

EXHIBIT W

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

GOOGLE LLC,

Plaintiff and Counter-defendant,

v.

SONOS, INC.,

Defendant and Counter-claimant.

Case No. 3:20-cv-06754-WHA
Related to Case No. 3:21-cv-07559-WHA

**REPLY EXPERT REPORT OF
DOUGLAS C. SCHMIDT**

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1 available, acceptable non-infringing alternative at the time of Google's first infringement for at
 2 least the reasons discussed above and discussed in my Prior Submissions.

B. Dr. Bhattacharjee's [REDACTED] Alternative

4 259. Dr. Bhattacharjee opines that "as [he] showed in [his] opening report, a non-
 5 infringing alternative that was available to Google at the time the '033 patent issued was for the
 6 receiver device not to send the accused [REDACTED]." Bhatta. Rebuttal
 7 Report, ¶288. I disagree for various reasons.

8 260. To start, Google and Dr. Bhattacharjee's explanation of this purported alternative
 9 has been a moving target, ambiguous as to what the alleged alternative even is, and inconsistent
 10 with respect to what functionality is involved.

11 261. As I explained in my Opening Report, Google's own explanation of this purported
 12 alternative to the Asserted Claims of the '033 Patent is vague and incomplete. *See* Schmidt Op.
 13 Report, ¶¶496-504. I have been informed that Google first identified and explained this purported
 14 alternative as to the Asserted Claims of the '033 Patent on November 21, 2022, which I understand
 15 was a mere 9 days before fact discovery closed on November 30, 2022. *See* Google LLC's Eighth
 16 Supplemental Objections and Responses to Plaintiff Sonos Inc.'s First Set of Fact Discovery
 17 Interrogatories (No. 18), pp. 13-14. In any case, Google's interrogatory response states the
 18 following:

19 [A] non-infringing alternative is for the receiver device to [REDACTED]
 20 [REDACTED] Instead, in Alternative 32 [sic] the receiver device
 21 would send a request to a [REDACTED].
 22 [REDACTED]. In other words, in Alternative #3 the receiver
 23 device does not "obtain data identifying a next one or more media items that are in
 24 the remote playback queue," and does not "use the obtained data to retrieve at least
 25 one media item in the remote playback queue from the cloud-based media service."

26 *Id.*, p. 13.

27 262. Google continues by asserting that it [REDACTED]
 28 [REDACTED]

29 [REDACTED] " *Id.*, pp. 13-14. Google concludes by stating
 30 [REDACTED] are discussed in further detail in the opening and rebuttal [showdown]
 31 reports of Dr. Bhattacharjee, which are incorporated herein by reference." *Id.*, p. 14.

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263. While Dr. Bhattacharjee did discuss [REDACTED] in this Showdown reports, that discussion was in the context of claim 13 of the '615 Patent that has different limitations than the Asserted Claims of '033 Patent. In that context, with respect to [REDACTED] Dr. Bhattacharjee stated that, for a non-Casting use case, [REDACTED] platform in which after [REDACTED] [REDACTED] to obtain both the alleged 'resource locators' and multimedia content." Bhatta. Op. Showdown Report, ¶590. Dr. Bhattacharjee characterized "the alleged 'resource locators'" as "a [REDACTED], or streaming URL from the [REDACTED]" *Id.*, ¶589. As I explained before, a WatchNext response that a Receiver obtains contains a videoId identifying the next media item that the Receiver is to playback.

264. Dr. Bhattacharjee continued by stating he understood that:

[REDACTED] *in a WatchNext response:*
[REDACTED] *GetWatchNext response* via chunked HTTP."
GOOG-SONOSNDCA-00071671[.]

Bhatta. Op. Showdown Report, ¶592.

265. What's notable here is that Dr. Bhattacharjee explained that, in the purported combined [REDACTED] alternative, the Receiver would obtain a [REDACTED] for the current media item is to playback, as well as a WatchNext response that would contain a videoId of the next media item that the Receiver is to playback. Indeed, Dr. Bhattacharjee stated the following in his Rebuttal Showdown Report regarding the purported combined [REDACTED] alternative: "[p]ut another way, with [REDACTED] Google's NIA No. 1 would merge the functionality of the [REDACTED], such that the [REDACTED] [REDACTED], as required by Claim 13." Bhatta. Op. Showdown Report, ¶361; *see also, id.*, ¶364 ("[REDACTED] [REDACTED]"). [REDACTED] is directed only at Sonos's argument that a videoId sent to the receiver by a [REDACTED] is a resource locator.").

266. In sum, in his Showdown Reports for the '615 Patent, Dr. Bhattacharjee explained

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that the purported combined [REDACTED] alternative involved a Receiver making a [REDACTED] with a videoId of a current media item¹¹ and the Receiver obtaining [REDACTED] for the current media item and a WatchNext response that would contain a videoId of the next media item.

267. Turning to Dr. Bhattacharjee's Opening Report for the '033 Patent, Dr. Bhattacharjee's opinions and analysis of this alleged alternative were likewise vague and incomplete to such an extent that it appeared that Dr. Bhattacharjee did not firmly grasp what Google is even proposing, as I explained in my Rebuttal Report. *See* Schmidt Rebuttal Report, ¶1010. In fact, Dr. Bhattacharjee's Opening Report essentially just parroted back verbatim what Google set forth in its November 21 interrogatory response and referred back to Dr. Bhattacharjee's Showdown Reports:

Google Rog. No. 18 Response	Bhatta. Op. Report, ¶¶759, 761
<p>[A] non-infringing alternative is for the receiver device to [REDACTED]. Instead, in Alternative 32 [sic] the receiver device would send a request to a [REDACTED].</p> <p>[REDACTED]</p> <p>In other words, in Alternative #3 the receiver device does not "obtain data identifying a next one or more media items that are in the remote playback queue," and does not "use the obtained data to retrieve at least one media item in the remote playback queue from the cloud-based media service."</p> <p>[REDACTED]</p> <p>[REDACTED]. See, e.g., GOOG-SONOSNDCA-00071671; GOOG-SONOSNDCA-00070863; GOOG-</p>	<p>[A] non-infringing alternative is for the receiver device to [REDACTED]. Instead, in Alternative #2 the receiver device would send a request to a [REDACTED].</p> <p>[REDACTED]</p> <p>In other words, in Alternative#2 the receiver device does not "obtain data identifying a next one or more media items that are in the remote playback queue," and does not "use the obtained data to retrieve at least one media item in the remote playback queue from the cloud-based media service."</p> <p>I understand that [REDACTED]</p> <p>[REDACTED]</p> <p>See, e.g., GOOG-SONOSNDCA-00071671; GOOG-</p>

¹¹ *See, e.g.,* Bhatta. Rebuttal Report, ¶¶289 ("[W]ith the [REDACTED] the request from the receiver to the [REDACTED] agent would include the videoId and/or playlist ID for the [REDACTED] 297 ("[A] videoId is used to retrieve the first several seconds of media content. *See also, e.g.,* GOOG-SONOSNDCA-00073494, 95 ([REDACTED])").")

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SONOSNDCA-00073429; GOOG-SONOSNDCA-00073577. [REDACTED] h are discussed in further detail in the opening and rebuttal reports of Dr. Bhattacharjee, which are incorporated herein by reference.

SONOSNDCA-00070863; GOOG-SONOSNDCA-00073429; GOOG-SONOSNDCA- 00073577. [REDACTED] are discussed in greater detail in my opening and rebuttal reports for claim 13 of the '615 patent, which I incorporate herein by reference.

268. Now, in his Rebuttal Report, Dr. Bhattacharjee describes the purported combined [REDACTED] alternative in much greater detail than he or Google has ever before, but some of his new description is inconsistent with his description in his Showdown Reports. *See* Bhatta. Rebuttal Report, ¶¶289, 295-97,

269. For example, Dr. Bhattacharjee now claims that the request that the Receiver sends to the [REDACTED] longer includes a videoId but rather only a playlistId. *See* Bhatta. Rebuttal Report, ¶289 [REDACTED]

[REDACTED] I note that the very passage from a Google internal document that Dr. Bhattacharjee cites for this proposition states that the request [REDACTED]

[REDACTED] but more to the point, the passage explains that the discussion of only including a playlistId to the exclusion of a videoId in the request is only for [REDACTED]

[REDACTED] *Id.* Thus, it does not appear to me that (i) Dr. Bhattacharjee is accurately describing the contents of the request that the Receiver sends and (ii) the contents of the request is the same for all types of playback.

270. As another example, Dr. Bhattacharjee explains that, for the [REDACTED] aspect of this purported alternative, a Receiver “would [REDACTED] for a media item (e.g., a song or video) each time it starts playback of the next media item” and “the [REDACTED] response returns media content for the beginning of the song or video ... followed by the [REDACTED] containing the

and he opines [REDACTED]

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1 Bhatta. Rebuttal Report, ¶296.

2 271. Having the benefit of more details of this purported combined [REDACTED]
 3 [REDACTED] alternative, I agree that a [REDACTED] does not amount to limitation 1.7's "data identifying
 4 a next one or more media items that are in the remote playback queue," but as I explain below, *the*
 5 *videoId* for the next media item contained in the WatchNextResponse portion of the [REDACTED]
 6 response does. Indeed, Dr. Bhattacharjee acknowledges that, in this purported combined
 7 [REDACTED] alternative, "a videoId is used to retrieve the first several seconds of
 8 media content." Bhatta. Rebuttal Report, ¶297. As I explained above, I disagree with Dr.
 9 Bhattacharjee's position that limitation 1.7 requires a single piece of data to be used to retrieve the
 10 *entire* media item, but rather, limitation 1.7 merely requires the "playback device" be configured
 11 to "*use the obtained data to retrieve* at least one media item in the remote playback queue from the
 12 cloud-based media service," which the Receiver does with the videoId of the next media item.
 13 *Supra* ¶¶189-94.

14 272. As another example, in response to my explanation "that this non-infringing
 15 alternative would still infringe because ... a receiver device would use 'WatchNextResponse data'
 16 to retrieve a media item" (Bhatta. Rebuttal Report, ¶298), Dr. Bhattacharjee contends:

17 But Dr. Schmidt misunderstands this alternative. Google's documents indicate that
 18 it has discussed different options for implementing [REDACTED]. For playing
 19 back playlists on a receiver device, [REDACTED]

20 See GOOG-SONOSNDCA-00070863 ([REDACTED]
 21 at -913 [REDACTED]

22 A receiver
 23 device would not use a videoId ("WatchNextResponse data") to retrieve the content
 24 for *the media items* in the receiver device.

25 *Id.*

26 273. Dr. Bhattacharjee's explanation here is inconsistent with his prior explanation from
 27 his Showdown Report and different from what Google advanced in its interrogatory response. In
 28 this regard, Dr. Bhattacharjee is now inconsistently saying a *single* request to the [REDACTED]
 would somehow result in the Receiver obtaining *all* subsequent media items and
 WatchNextResponses. In fact, Dr. Bhattacharjee's assertion is not even supported by the document

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1 that he cites, [REDACTED]

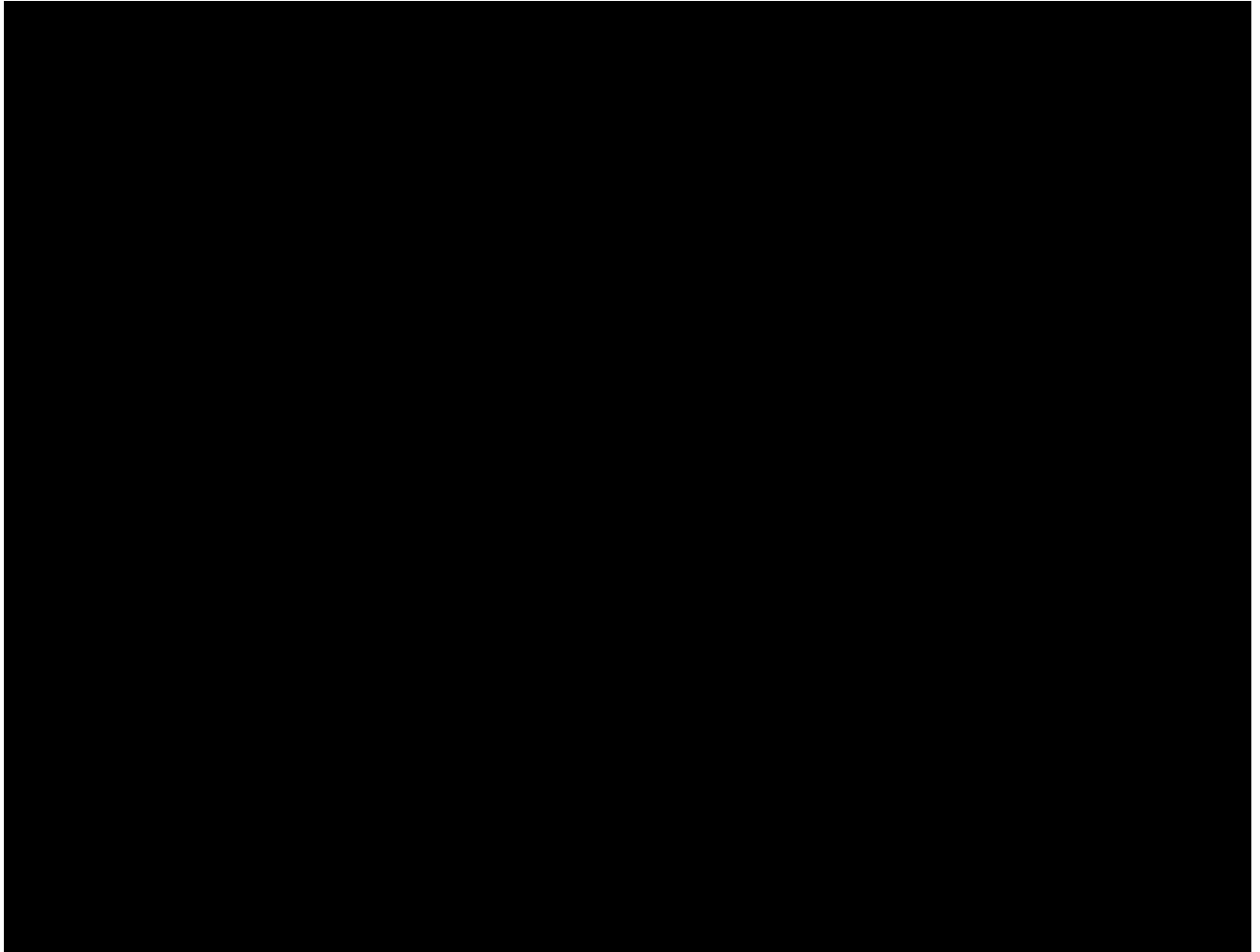
2 [REDACTED].

3 274. Dr. Bhattacharjee appears to be saying that his new modification to the purported
4 combined [REDACTED] alternative would involve a [REDACTED]
5 [REDACTED] for *each* Receiver that is in a Cast session in the United States at any
6 given time, where that newly modified [REDACTED] not only provides all media items to a
7 particular Receiver but also manages its particular Receiver's playback through the remote
8 playback queue and somehow manages all WatchNext request/response interactions on behalf of
9 the Receiver. What's more, Dr. Bhattacharjee provides no explanation about how his new
10 modification would enable a user to skip to the next media item without the Receiver storing the
11 videoId of that next media item and exchanging it with the [REDACTED]. In this way, Dr.
12 Bhattacharjee appears to be proposing to drastically alter the workload and sophistication of each
13 [REDACTED] and again, there would need to be a newly-modified
14 [REDACTED] for each Receiver that is in a Cast session in the United States at any given time.
15 Simply put, it is my opinion that such a proposed design would not have been technically feasible
16 and Dr. Bhattacharjee has certainly not explained how it could have been.

17 275. Regardless, I understand that, because Google's interrogatory response incorporates
18 Dr. Bhattacharjee's Showdown Reports by reference and does not otherwise explain the details of
19 the purported combined [REDACTED] alternative, the description in Dr. Bhattacharjee's
20 Showdown Reports of this purported alternative is what controls. As I explained in my Rebuttal
21 Report, the [REDACTED] alternative described in Dr. Bhattacharjee's Showdown
22 Reports still would infringe limitation 1.7 because the Receiver would still be configured to
23 "communicate with the cloud-based computing system in order to obtain data identifying a next
24 one or more media items that are in the remote playback queue" by virtue of a first [REDACTED]
25 (e.g., that returns a WatchNextResponse containing, *inter alia*, a second videoId for a next media
26 item for the Receiver to playback), which I have illustrated below, and would still be configured to
27 "use the obtained data to retrieve at least one media item in the remote playback queue from the
28 cloud-based media service" by virtue of a second [REDACTED] (e.g., that returns (i) media data

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1 corresponding to the second videoId and (ii) a WatchNextResponse containing, *inter alia*, a third
2 videoId for a next media item for the Receiver to playback), which I have illustrated below.



19 276. In stark contrast to what is illustrated above, Dr. Bhattacharjee provides two sets of
20 illustrations of his (new) combined [REDACTED] alternative that show a Receiver
21 sending a single request containing a playlistId for a given playlist to the [REDACTED] and the
22 Onesie agent in turn streaming media data and meta-data for *all* media items in the playlist, one set
23 of which is reproduced below:

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277. Again, Dr. Bhattacharjee’s illustrations provide no hint as to how this is technically feasible and obscures the new modifications that he is proposing. The illustration below more accurately reflects some of the necessary (undiscussed and unexplained) modifications for Dr. Bhattacharjee’s (new) combined Onesie/Streaming-Watch alternative:

278. Dr. Bhattacharjee attempts to minimize the testimony of Google’s 30(b)(6) witness, Mr. Mo, that undermines Google and Dr. Bhattacharjee’s assertion that “[REDACTED] [REDACTED]
[REDACTED]

....” See Bhatta. Rebuttal Report, ¶290. But I find his positions to be flawed.

279. **First**, Dr. Bhattacharjee acknowledges that Mr. Mo was designated Google’s 30(b)(6) witness for “the accused casting functionality.” *Id.*, ¶291. The purported [REDACTED] alternative of course relates to “the accused casting functionality.” *See, e.g.,* Bhatta. Op. Showdown Report, ¶590 (“[REDACTED]”).

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Dated: January 23, 2023



DOUGLAS C. SCHMIDT